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| Modified Form 1449/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(use as many sheets as necessary) | <b>Application Number</b>     | 10/041,615           |
|   | <b>Filing Date</b>            | 01/03/02             |
|   | <b>First Named Inventor</b>   | Casman               |
|   | <b>Group Art Unit</b>         | 1632 1646            |
|   | <b>Examiner Name</b>          | Not Yet Assigned     |
|   | <b>Attorney Docket Number</b> | 21402-233 (Cura-533) |

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| U.S. PATENT DOCUMENTS |          |                          |            |                                     |       |           |                            |
|-----------------------|----------|--------------------------|------------|-------------------------------------|-------|-----------|----------------------------|
| Exam Initials         | Cite No. | U.S. Patent Document No. | Issue Date | Name of Patentee(s) or Applicant(s) | Class | Sub Class | Filing Date if Appropriate |
|                       |          |                          |            |                                     |       |           |                            |

| FOREIGN PATENT DOCUMENTS |          |                                |           |  |                     |                         |
|--------------------------|----------|--------------------------------|-----------|--|---------------------|-------------------------|
| Exam Initials            | Cite No. | Foreign Patent Document Number |           | Name of Patentee(s) or Applicant(s)                              | Date of Publication | Translation Yes No      |
| EEK                      | B1       | EP                             | 1 270 724 | National Institute of Advanced Industrial Science and Technology | 01/02/03            | <div></div> <div></div> |
| ↓                        | B2       | WO                             | 01/27158  | Digiscents   | 4/19/01             | <div></div> <div></div> |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS |          |  |
|---|----------|--|
| Exam Initials                                     | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
| EEK   | C159     | EMBL Accession No.: L78442 (9 Jun 1996).   |
|   | C160     | Trask, et al. (1998). Hum Mol Genet 7: 13-26.                                      |
|   | C161     | EMBL Accession No.: AL627309 (24 OCT 2001).  |
|   | C162     | EMBL Accession No.: AAH31769 (30 July 2001).                                       |
|   | C163     | EMBL Accession No.: AAG71593 (30 July 2001).                                       |
|   | C164     | EMBL Accession No.: AX646225 (3 March 2003).                                       |
|   | C165     | Rouquier, et al. (1998). Nature Genetics 18  |
| ↓   | C166     | International Search Report for PCT/US 02/00056, mailed April 11, 2003.            |

\* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

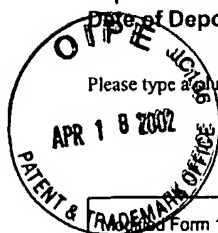
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| Examiner Signature | E. Kemmener | Date Considered | 5/31/04 |
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|   | <b>First Named Inventor</b>   | Kekuda                    |
|   | <b>Group Art Unit</b>         | Not Yet Assigned — 1646   |
|   | <b>Examiner Name</b>          | Not Yet Assigned — Kemner |
|   | <b>Attorney Docket Number</b> | 21402-233 (Cura-533)      |

| U.S. PATENT DOCUMENTS |          |                          |            |                                     |       |           |                            |
|-----------------------|----------|--------------------------|------------|-------------------------------------|-------|-----------|----------------------------|
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|--------------------------|----------|---------------------------------------|-------------------------------------|---------------------|--------------------|
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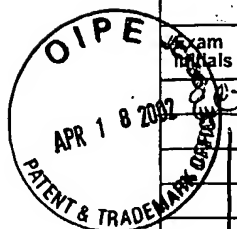
| OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS |          |   |
|---|----------|---|
| Exam Initials                                     | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.  |
| Cell  | C1       | Asai et al. (1996). "Genomic structure and transcription of a murine odorant receptor gene: differential initiation of transcription in the olfactory and testicular cells." <i>Biochem Biophys Res Commun</i> 221(2): 240-247. |
|   | C2       | Ben-Arie et al. (1994). "Olfactory receptor gene cluster on human chromosome 17: possible duplication of an ancestral receptor repertoire." <i>Hum Mol Genet</i> 3(2): 229-235.   |
|   | C3       | Blier (2001). "Pharmacology of rapid-onset antidepressant treatment strategies." <i>J Clin Psychiatry</i> 62(Suppl 15): 12-17.  |
|   | C4       | Buck and Axel (1991). "A novel multigene family may encode odorant receptors: a molecular basis for odor recognition." <i>Cell</i> 65(1): 175-187.  |
|   | C5       | El Yacoubi et al. (2001). "Adenosine A2A receptor antagonists are potential antidepressants: evidence based on pharmacology and A2A receptor knockout mice." <i>Br J Pharmacol</i> 134(1): 68-77.                               |
|   | C6       | GenBank Accession Number: AAA35924 (12-JUN-1993)  |
|   | C7       | GenBank Accession Number: AAA41740 (27-APR-1993)  |
|   | C8       | GenBank Accession Number: AAB16746 (07-OCT-1996)  |
|   | C9       | GenBank Accession Number: AAB29171 (05-FEB-1994)  |
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| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS |             |  |
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| Exam<br>No.                                       | Cite<br>No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
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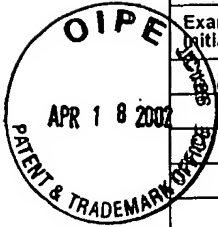
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## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

| Exam<br>Initials | Cite<br>No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
|------------------|-------------|--|
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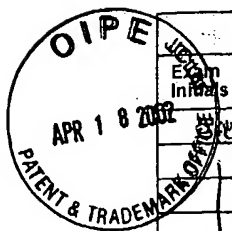


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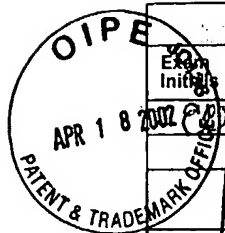
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| C136     | GenBank Accession Number: Y14442 (19-SEP-1997)  |
| C137     | GenBank Accession Number: Z94155 (27-AUG-1998)  |
| C138     | Heinemann et al. (2000). "Basophil responses to chemokines are regulated by both sequential and cooperative receptor signaling." <i>J Immunol</i> 165(12): 7224-7233.             |
| C139     | Issel-Tarver and Rine (1996). "Organization and expression of canine olfactory receptor genes." <i>Proc Natl Acad Sci U S A</i> 93(20): 10897-10902.                              |
| C140     | Krautwurst et al. (1998). "Identification of ligands for olfactory receptors by functional expression of a receptor library." <i>Cell</i> 95(7): 917-926.                         |
| C141     | Malnic et al. (1999). "Combinatorial receptor codes for odors." <i>Cell</i> 96(5): 713-723.   |
| C142     | Monopoli et al. (1998). "Blockade of adenosine A2A receptors by SCH 58261 results in neuroprotective effects in cerebral ischaemia in rats." <i>Neuroreport</i> 9(17): 3955-3959. |
| C143     | Online Mendelian Inheritance in Man (OMIM): 164342  |
| C144     | Parmentier et al. (1992). "Expression of members of the putative olfactory receptor gene family in mammalian germ cells." <i>Nature</i> 355(6359): 453-455.                       |
| C145     | Pittenger et al. (1999). "Multilineage potential of adult human mesenchymal stem cells." <i>Science</i> 284(5411): 143-147.   |
| C146     | Rouquier et al. (1998). "A gene recently inactivated in human defines a new olfactory receptor family in mammals." <i>Hum Mol Genet</i> 7(9): 1337-1345.                          |
| C147     | SWALL (SPTR) Accession Number: Q9JKA6 (1-OCT-2000)  |
| C148     | SWALL (SPTR) Accession Number: Q9PW88 (1-MAY-2000)  |
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| ✓   | C151     | SWALL (SPTR) Accession Number: Q9WVN6 (1-NOV-1999)  |
|   | C152     | SWALL (SPTR) Accession Number: Q9Y5P1 (16-OCT-2001)   |
|   | C153     | Thomas et al. (1996). "Chemoreceptors expressed in taste, olfactory and male reproductive tissues." <i>Gene</i> 178(1-2): 1-5.                                      |
|   | C154     | Tranquillini and Reggiani (1999). "Glycine-site antagonists and stroke." <i>Expert Opin Investig Drugs</i> 8(11): 1837-1848. ABSTRACT ONLY                          |
|   | C155     | Vanderhaeghen et al. (1997). "Specific repertoire of olfactory receptor genes in the male germ cells of several mammalian species." <i>Genomics</i> 39(3): 239-246. |
|   | C156     | Walensky et al. (1998). "Two novel odorant receptor families expressed in spermatids undergo 5'-splicing." <i>J Biol Chem</i> 273(16): 9378-9387.                   |
|   | C157     | Wootton and Federhen (1996). "Analysis of compositionally biased regions in sequence databases." <i>Methods Enzymol</i> 266: 554-571.                               |
|   | C158     | Xie et al. (2000). "Characterization of a cluster comprising approximately 100 odorant receptor genes in mouse." <i>Mamm Genome</i> 11(12): 1070-1078.              |

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|                    |                  |                 |        |
|--------------------|------------------|-----------------|--------|
| Examiner Signature | <i>E. Hemmer</i> | Date Considered | 3/4/04 |
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